



BIOTECHNOLOGY ADVISORY COMMITTEE MEETING
FRIDAY, MAY 30 2008
2:00 pm – 4:45 pm
Alta Partners
One Embarcadero Center, 37th Floor
San Francisco, CA

MEETING SUMMARY

A meeting of the Biotech Advisory Committee was held on May 30, 2008.

Committee Members Present

Lt. Governor John Garamendi, CED Chair
Virginia Chang Kiraly, Committee Chair
Joan Chu
Terese Ghio
David Gollaher
Matthew Gardner
Steve Heinemann
David Mack
Susan Molineaux
Evan Siegel

Committee Members Not Present

Joseph Panetta

Others in Attendance

Richard Baum, Executive Director
Michele Gault, Deputy Director
Poonum Kaberwal, CED Intern
Todd Rufo, Mayor Newsom's Office
Patty Cooper, Executive Director, CA
Biotechnology Foundation

WELCOME

Lt. Governor John Garamendi called the meeting to order. The Lt. Governor discussed the history and current status of the CED, stating that its purpose is to inform the Legislature and administration on key policies that affect economic development. He introduced CED Commissioner Virginia Chang Kiraly, chair of the Biotechnology Advisory Committee.

Ms. Chang Kiraly introduced herself and noted that the Biotechnology Advisory Committee's role is to provide the CED with policy advice with respect to maintaining and increasing economic vitality in the biotech sector. She thanked David Mack and Alta Partners for hosting the committee meeting. She invited committee members to make self introductions.

Brief Overview of the Economic Impact of the Biotech/Life Sciences Industry in California and Venture Capital in the Life Sciences Industry

David Mack, *Alta Partners*

Dr. Mack provided a PowerPoint presentation highlighting the following:

- Definition of biomedical and life sciences: medical technology, devices for drug procedure and delivery, and structural type operations.
- **Venture Capital:** upward trend in the investments in biotech made by venture capital firms:
 - \$3.2 billion invested within CA out of total \$7 billion annually.
 - Trend will continue to grow as more money is needed to produce value generators.
 - Innovation and risk takers will be rewarded as pharma weakens. The patent expiree program illustrates how the pharma industry is building a greater reliance on revenue streams.

- As the trend towards acquisition by merger continues, more revenue will be generated for generic medicine. \$50 billion is estimated in revenue for generic medicine in the coming year.
- CA is the international leader in biotech and life sciences, accounting for 40% of worldwide activity in life sciences. To maintain its decisive position, the state must compete with rising regions such as Japan, Singapore and others that are competitively vying for the pharma and biotech sector's expansion.
- California needs to encourage innovative medicine, as the biotech sector provides a significant amount of employment opportunities and revenues for the state.
 - 2,700 biotech companies in CA produce \$72 billion in product revenue.
 - The sector's revenue margin generates \$27 billion that is invested back into infrastructure and economy.
 - Biotech and Life Sciences are the second largest employers within the state with over 250,000 employees.
 - California is #1 in generating NIH grants and drawing VC money for investment.
- **Role of Universities:** The UC system and private universities are powerful drivers within the sector as 85% of those with higher education in the industry are graduates of the UC system. The state needs to acknowledge and support this academic role, allowing California to stay a leader in the industry.
- **Company Relocation and Outsourcing:** A growing concern within California is the declining stimulus and economic advantage the state offers its biotech companies.
 - Although 60% of biotech companies have manufacturing products within the state, 35% have some manufacturing capabilities in other states and 39% in other countries. In the next two years, 80% expect to spread production out of the state, specifically because of the comparative better tax treatment within other states.
 - Genentech will be investing \$400 million in Oregon to construct a facility that will fill and package commercial drugs. The project is expected to provide nearly 300 jobs by 2015.
- **Corporate Tax Policy:** Taxation of infrastructure, equipment, and head count has become a motivating factor for many companies to abandon California for states that offer tax incentives. Tax treatment for billing institutions is a pressing concern that needs to be reformed within legislation to allow California to build and expand.
- **Competition from Other States and Countries:** California faces competitive challenges from the business inducements offered in other states, like North Carolina (Research Triangle Park), Texas, Michigan, and Florida. Investors are also considering their options abroad as Hong Kong and Mainland China where tax treatment is much more encouraging for business.
- **Workforce Recruiting:** Struggle to get high-quality talent and management into California
- Need for an **action plan** that continues funding and advances education for life sciences sector.
 - Focus should be on preparing adequate human capital, tax and investment incentives using models from other states, and specific infrastructure improvements.
 - Federal, state, and local regulations can prove to be helpful if reformed.
- Business formation is accelerating at a significant pace, and California needs to address the issues of subsidizing and providing incentives.

California Life Sciences Action Plan

Matthew Gardner, *BayBio*

- The Life Sciences Action Plan was originally published in 2004 at the request of the Gray Davis administration, and continues to serve as an active document for discussion.
- The plan encourages producing action-oriented discussion to push the state's lead forward. The following are some of the findings from the report that are still important today:

- Issues have arisen regarding financial improvement, the viability of NOLs (net operating losses), expiration of the MIC (Manufacturers' Investment Credit), and the impact of regulation on financing.
- Electronic submission of regulatory forms needs to be reformed since clients are forced to pay regulatory affairs officers to fill out paperwork at significant cost. Authorities respond that the system is too expensive to fix.
- The need to produce adequate human capital is a long term issue.
 - Predicting long-run labor needs is difficult because of the risk and nature of clinical trials.
 - The UC system has done its job in producing needed output, but there is a career mismatch within the community college, CSU level and occupational demands of the biotech sector. The industry is facing a labor shortage for regulatory affairs professionals as campuses have been slow to match the demand. Since the industry is one of the most heavily regulated sectors of the economy, the NIH regulatory affairs program needs more trained professionals who will strengthen negotiation, strategic planning, and technology integration.
 - The CSU system has created a professional science masters degree and CSU San Jose has developed a certificate-based regulatory affairs program.
 - The effectiveness of the certificate-based program is much more relevant to the skills set and demands needed. Mr. Gardner applauded the rapid response certification program model adopted by San Diego State and UC Santa Cruz as both are direct and immediate responses to the urgent needs within the sector.
- Employment within regulatory affairs is a valuable opportunity that should be seriously considered at the academic level so that California does not lose jobs to companies on the east coast that receive greater state support.
- The demand for these positions is apparent in California, but many are deterred by the difficulties of staying in CA as compared to the high salaries and low housing elsewhere.

The Lt. Governor stressed that academic planning within the state's higher education system is necessary to improve the workforce. The CSU system is doing a better job of developing a strategic plan; however, the UC system's thinking appears to have no relevance to the needs of the economy. It is imperative that they develop a strategic plan that meets the needs of California.

He urged the advisory members to play an active role in highlighting the importance of this matter, since the higher education system risks losing support as its effectiveness dwindles and it lacks communication with the labor market.

Mr. Gardner identified the need for more community collaboration.

- Create an advisory group to represent biotech sector's unified needs.
- Increase communication between trade associations, industry groups, and state representatives to foster ongoing dialogue and incentives for the biosciences industry.
- Create a Governor's "Entrepreneur of the Year" to foster entrepreneurial spirit
- California is the only state without a biotech strategy.
 - Have state adopt the biotech strategy plan that the industry has created.
 - Urge the state to acknowledge the importance of the biotech sector beyond simply adopting a formal policy.
 - Recognize that, although the state has a budget deficit this year, it should seriously consider prioritizing future available funds for biotech sector.
 - Implement immediately the 5 out of 12 action plan directives that have no cost .

- Per capita spending has been decreasing at the UC level; education needs to be reinstated as a key concern for the state in order to attract and produce an educated and skilled workforce.
- The state needs to proactively choose to become innovative and competitive, demonstrating its willingness to change and adapt to the economic challenges.

KEEPING CALIFORNIA COMPETITIVE, Committee Members Discussion

- The Lt. Governor observed that the Legislative Analyst's Office has considered restructuring the NOL deduction and R&D tax credit to increase revenues for the state budget
 - Proposal to reduce available NOL deduction to 50% in any year vs. the current 100%.
 - Manufacturing tax credit (MIC) eliminated several years ago
 - R&D tax credit to continue, but possibly at a reduced level
 - Above changes could produce \$700 million in additional revenue to state
 - Reinstating previously discarded tax brackets for high income level to previous level would produce \$6.2 billion
 - Broaden state sales and use tax, adding items that are taxable in other states, but not CA. (e.g. legal services)
 - Total potential new revenue produced of \$10-12 billion allows for full funding of K-12 programs.
- NOL and R&D tax credit is extremely important to biotech companies. Committee members stated that a 50% reduction in the application of NOLs is far too drastic, but that a reduction to 75% or 80% might be workable. Cutting the applicability of NOLs negatively affects companies' 5 to 10 year strategic plans. Any reduction to the NOL write-off should be phased in.
- Cost-Benefit Analysis from Displacement
 - Loss of jobs, reduction of personal and corporate income tax revenue to the state when companies cease to exist (Years 1-4)
 - Competitive barriers and risk of losing innovation from the state
- Tax abatement in certain states
 - CA should consider biotech as a business model that has a much higher level of risk and investment than other California industries.
 - Re-evaluate tax policy that regards tax breaks as unnecessary to economic growth. While organizations and companies have successfully lobbied to maintain tax credits and write-offs, they have not provided much well grounded economic analysis. Such analysis should be developed if there is indeed supporting data.

DISCUSSION

- The committee might research to the impact recent legislation has had on the growth of the biotech industry. Regulatory oversight is appropriate and necessary as long as it adheres to the overarching principle of "do no harm".
 - Track relevant bills in CA to determine whether they will increase or decrease the regulatory burden.
 - Analyze unintended consequences of legislative efforts by focusing on any adverse affects on the economics of the biotech sector.
- Economic Trade-Offs: State faces \$17 billion deficit. With 25-30% cuts, it is difficult to cut education and expect a strong economy. The state needs to analyze where to produce budget cuts in CA without stunting long-term business growth.
 - The number of taxpayers in the highest income brackets (\$90,000+) has increased enabling the state to gain more revenue.

- Lt. Governor discussed the differences between having a surcharge on all taxpayers as compared to a business charge that may be problematic for small businesses without high levels of revenue.
- State tax revenues are primarily from industry, but CA needs to consider other options.
 - Car tax as possibility?
 - Increase tax on industry could push it out.
 - Success of biotech is dependent on scientists and the state plays crucial role in fostering the education of the very best scientists.
 - Possibility of high-income tax that is designated for education
- Challenges of Biotech as Zero-Sum Industry
 - Need to protect new industries; similar to need to nurture and protect education.
 - Tax burden should be placed on companies that are more established.
 - Legislature does not appreciate that the industry is a zero-sum industry with a high rate of failure.
 - Strategy to tax the rich companies that become successful versus taxing all in preliminary stages.
- States that offer extraordinary incentives: Arizona, Nevada, Oregon, North Carolina (RTP)
 - Infrastructure incentives coupled with tax abatement and forgiveness until company is revenue-generating
 - Research Triangle Park: academic triangle with tax policy built around it.
 - Large companies more willing to pay on revenue, but not on infrastructure
- Incentivize R&D firms - If they become profitable, funds go back into state and local funding as payback for benefit given to them to grow.
- Detailed Analysis - Tax apportionment and NOL policy has not heretofore been based on economic analysis and research. Policymakers will adjust target levels based on ability to make up for state deficit in various areas rather than sound economic analysis.
- Technology Transfer
 - UC System is overvaluing their technology and the deadlock between the biotech industry and the university system causes lost time and lost opportunities in technological advancement.
 - University does not understand industry and risk analysis, but instead is focused on becoming a profit center.
- Need for an applicable economic model for UC system to move knowledge from schools to the public sector providing a template that displays the shared risks and technology transfer that can be presented to the Regent level.
- Universities are becoming more entrepreneurial to satisfy their funding needs - As per capita spending has decreased, the university has increased student fees and philanthropy to gain revenue and now is increasing pressure to maximize returns on laboratories and other forms of intellectual returns.
- Must develop economic argument for why NOLs and R&D are economically important to counter legislative analysts view.

Meeting was adjourned by Lt. Governor at approximately 4:35 pm.
 Meeting notes submitted by Poonum Kaberwal and Michele Gault